

IN THE CLAIMS:

Amend claims 1 and 5 as follows:

1. (Amended) A retrograde cannula for delivering fluid to a patient's vessel,  
the cannula comprising:

a body including proximal and distal ends and an infusion lumen extending therebetween for conducting pressurized fluid from a lumen inlet to a lumen outlet arrangement disposed adjacent the distal end;

an automatically inflatable balloon extending around the body adjacent to, and spaced from, the lumen outlet arrangement, the balloon receivable in the vessel in a deflated state and being inflatable into sealing contact with a wall of the vessel, the body including a passage arrangement for fluidly communicating the balloon with the infusion lumen to enable the balloon to be inflated by the pressurized fluid conducted through the infusion lumen; and

a valve arranged in the body for being shifted between an open position to open the passage arrangement, and a closed position for closing the passage arrangement to keep the balloon in its inflated state when the delivery of pressurized fluid is halted, the valve arranged to maintain fluid communication between the lumen inlet and the lumen outlet arrangement while in its open position and its closed position.

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5. (Amended) A retrograde cannula for delivering cardioplegia to a vessel of a heart, the cannula comprising:

a body including proximal and distal ends and an infusion lumen extending therebetween for conducting cardioplegia from a lumen inlet to a lumen outlet arrangement disposed adjacent the distal end;

an automatically inflatable balloon extending around the body adjacent to, and spaced from, the lumen outlet arrangement, the balloon receivable in the vessel in a deflated state and being inflatable into sealing contact with a wall of the vessel, the body including a passage arrangement for fluidly communicating the balloon with the infusion lumen to enable the balloon to be inflated by the pressurized cardioplegia conducted through the infusion lumen; and

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passage opening and closing means for opening the passage arrangement to communicate the balloon with the infusion lumen, and for closing the passage to keep the balloon in its inflated state when the delivery of cardioplegia is halted, the passage opening and closing means arranged to maintain fluid communication between the lumen inlet to the lumen outlet arrangement while in its passage-opening position and its passage-closing position.

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Insert new claims 14-17 as follows:

14. (New) A retrograde cannula for delivering fluid to a patient's vessel, the cannula comprising:

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a body including proximal and distal ends and an infusion lumen extending therebetween for conducting pressurized fluid to a lumen outlet arrangement disposed adjacent the distal end;

an automatically inflatable balloon extending around the body adjacent to, and spaced from, the lumen outlet arrangement, the balloon receivable in the vessel in a deflated state and inflatable into sealing contact with a wall of the vessel, the body including a passage arrangement for fluidly communicating the balloon with the infusion lumen to enable the balloon to be inflated by the pressurized fluid conducted through the infusion lumen; and

a valve arranged in the body for being shifted between an open position to open the passage arrangement, and a closed position for closing the passage arrangement to keep the balloon in its inflated state when the delivery of pressurized fluid is halted, wherein the body further includes a drain lumen arranged to interconnect the balloon with the infusion lumen independently of the passage arrangement, the drain lumen being openable and closable

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15. (New) A retrograde cannula for delivering cardioplegia to a vessel of a heart, the cannula comprising:

a body including proximal and distal ends and an infusion lumen extending therebetween for conducting cardioplegia to a lumen outlet arrangement disposed adjacent the distal end;

an automatically inflatable balloon extending around the body adjacent to, and spaced from, the lumen outlet arrangement, the balloon receivable in the vessel in a deflated state and inflatable into sealing contact with a wall of the vessel, the body including a passage arrangement for fluidly communicating the balloon with the infusion lumen to enable the balloon to be inflated by the pressurized cardioplegia conducted through the infusion lumen; and

means for opening the passage arrangement to communicate the balloon with the infusion lumen, and for closing the passage to keep the balloon in its

inflated state when the delivery of cardioplegia is halted, wherein the body further includes a drain lumen arranged to interconnect the balloon with the infusion lumen independently of the passage arrangement, the drain lumen being openable and closable.

16. (New) A retrograde cannula for delivering fluid to a patient's vessel, the cannula comprising:

a body including proximal and distal ends and an infusion lumen extending therebetween for conducting pressurized fluid from a lumen inlet to a lumen outlet arrangement disposed adjacent the distal end;

an automatically inflatable balloon extending around the body adjacent to, and spaced from, the lumen outlet arrangement, the balloon receivable in the vessel in a deflated state and being inflatable into sealing contact with a wall of the vessel, the body including a passage arrangement for fluidly communicating the balloon with the infusion lumen to enable the balloon to be inflated by the pressurized fluid conducted through the infusion lumen; and

a valve arranged in the body externally of the infusion lumen for being shifted between an open position to open the passage arrangement, and a closed position for closing the passage arrangement to keep the balloon in its inflated state when the delivery of pressurized fluid is halted.

17. (New) A retrograde cannula for delivering cardioplegia to a vessel of a heart, the cannula comprising:

a body including proximal and distal ends and an infusion lumen extending therebetween for conducting cardioplegia from a lumen inlet to a lumen outlet arrangement disposed adjacent the distal end;

an automatically inflatable balloon extending around the body adjacent to, and spaced from, the lumen outlet arrangement, the balloon receivable in the vessel in a deflated state and being inflatable into sealing contact with a wall of the vessel, the body including a passage arrangement for fluidly communicating the balloon with the infusion lumen to enable the balloon to be inflated by the pressurized cardioplegia conducted through the infusion lumen; and

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passage opening and closing means disposed externally of the infusion lumen for opening the passage arrangement to communicate the balloon with the infusion lumen, and for closing the passage to keep the balloon in its inflated state when the delivery of cardioplegia is halted, the passage opening and closing means arranged to maintain fluid communication between the lumen inlet to the lumen outlet arrangement while in its passage-opening position and its passage-closing position.

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